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chamber of a vacuum processing system and can provide a smooth surface of the domed lid for ease of handling and use. Where only one placement of the lid is envisioned, the domed lid can be spun so that the finished surface is internal to the transfer chamber.

In the Claims:

Cancel without prejudice claims 16-20 which were previously withdrawn due to a restriction requirement.

Amend claims 1, 3, 14 and 15 to read as follows.

1. (Amended) A vacuum processing system, comprising:

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a transfer chamber adapted to couple to at least one processing chamber and at least one load lock chamber and to house at least an end effector of a robot adapted to transport a substrate between the at least one processing chamber and the at least one load lock chamber; and

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a lid mounted on the transfer chamber where the lid has a curved configuration such that an edge of the lid is sealed to an edge of the transfer chamber and the lid is curved such that a center of the lid gradually increases its distance both horizontally and vertically from the edge of the transfer chamber.

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3. (Amended) The vacuum processing system of claim 1, wherein the lid has a concave configuration such that the lid center is vertically further from an inside area of the transfer chamber as compared to an edge of the lid.

14. (Amended) A vacuum processing system comprising:
a transfer chamber having a domed lid;
one or more process chambers attached to the transfer chamber; and
one or more load lock chambers attached to the transfer chamber.

15. (Amended) The vacuum processing system of claim 14, wherein the system further comprises a substrate mover for transferring the substrate within the transfer chamber.

Add new claims 21-28 as follows:

21. (New) A vacuum processing system, comprising:
a transfer chamber;
a lid mounted on the transfer chamber where:
the lid has a curved configuration such that an edge of the lid is sealed to an edge of the transfer chamber and the lid is curved such that a center of the lid gradually increases its distance both horizontally and vertically from the edge of the transfer chamber; and
a transparent window element positioned between the edge of the lid and the edge of the transfer chamber.

22. (New) The vacuum processing system of claim 21 wherein the transfer chamber is circular.

23. (New) A vacuum processing system, comprising

a transfer chamber having at least one processing chamber and at least one load lock chamber coupled thereto;

a robot adapted to transport a substrate between the at least one processing chamber and the at least one load lock chamber via the transfer chamber; and

a lid mounted on the transfer chamber where the lid has a curved configuration such that an edge of the lid is sealed to an edge of the transfer chamber and the lid is curved such that a center of the lid gradually increases its distance both horizontally and vertically from the edge of the transfer chamber.

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24. (New) A vacuum processing system, comprising:

a transfer chamber having at least one processing chamber and at least one load lock chamber coupled thereto;

a robot adapted to transport a substrate between the at least one processing chamber and the at least one load lock chamber via the transfer chamber; and

a domed, horizontally disposed member adapted to form an airtight seal with the transfer chamber.

25. (New) The vacuum processing system of claim 24, wherein the domed, horizontally disposed member is a lid for the transfer chamber.

26. (New) An apparatus, comprising:

a transfer chamber adapted to:

be coupled to at least one processing

chamber;

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chamber; and

have a robot at least partially installed therein, the robot being adapted to transport a substrate between the at least one processing chamber and the at least one load lock chamber via the transfer chamber and

a domed, horizontally disposed member adapted to form an airtight seal with the transfer chamber.

27. (New) The apparatus of claim 26, wherein the domed, horizontally disposed member is a lid for the transfer chamber.

28. (New) A vacuum processing system, comprising
a transfer chamber; and

a lid mounted on the transfer chamber where:
the lid has a curved configuration such that an edge of the
lid is sealed to an edge of the transfer chamber and the lid
is curved such that a center of the lid gradually increases
its distance both horizontally and vertically from the edge
of the transfer chamber;

wherein the lid has a convex configuration such that the lid center is vertically closer to an inside area of the transfer chamber as compared to an edge of the lid.

REMARKS

Claims 1-15 and 21-28 are now in this application
non-elected claims 16-20 having been canceled without
prejudice, and new claims 21-28 having been added in this
paper. Claims 1-3 and 5-15 stand rejected and are now